遗传 2004 26 (1): 40-44 ISSN: 0379-4172 CN: 11-5450/R

猪微卫星标记多重PCR扩增组合 Amplification of Pig Microsatellite Markers Using Multiplex PCR

郭晓令1,2,徐宁迎1,LOOFT Christian2,REINSCH Norbert2,KALM Ernst2 GUO Xiao-Ling1,2,XU Ning-Ying1,LOOFT Christian2,REINSCH Norbert2,KALM Ernst2
1.浙江大学动物科学学院，杭州 310029; 2.德国基尔大学畜牧兽医所，基尔 24098 1.College of Animal Science,Zhejiang University,Hangzhou 310029,China; 2.Institute of Animal Breeding and Husbandry,Christian-Albrechts-University,24098 Kiel,Germany

收稿日期 修回日期 网络版发布日期 接受日期

摘要 采用多重PCR的方法，以快速扩增微卫星标记和节约试剂为目标，对其反应条件进行优化后，获得了46个扩增效果理想的微卫星标记多重PCR组合，其中30个为二重PCR，16个为三重PCR。实验结果表明，这些多重PCP反应的引物浓度为0.06~0.3μmol/L， Mg2+的浓度变化范围为1.5~3.0mmol/L,采用的PCR缓冲液的倍数为1.0、1.2、1.4或1.6，每个PCR反应聚合酶的用量在0.2和0.4U之间，退火温度及反应循环数分别为52~60℃ 和32~50℃。所有多重PCR进一步合并为17个可在ABI 337测序仪上进行电泳的组合。
Abstract:In order to rapidly amplify pig microsatellite markers and save materials,multiplex PCR was used and its reaction condition was optimized.Forty-six combinations of multiplex PCR with good effects were obtained.Thirty of them are duplex-PCRs,sixteen are triplex-PCRs.The results of multiplexes showed that the concentration of primers varied among 0.06~0.3μmol/L,the Mg2+ concentration among 1.5~3.0 mmol/L;0.2~0.4 U of Taq polymerase and 1.0-,1.2-,1.4-,1.6-fold buffer were used,the annealing temperature and the cycle number varied among 52~60℃ and 32~50℃,respectively.All multiplexes were further combined into 17 sets for the electrophoresis on ABI 377 sequencer.

关键词 猪 微卫星 多重PCR Key words pig microsatellite multiplex PCR
分类号

Abstract

Key words

DOI:

通讯作者